



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,489	08/22/2003	Nalin Mistry	91436-371	8712
22463	7590	05/22/2007	EXAMINER	
SMART AND BIGGAR			PHAN, MAN U	
438 UNIVERSITY AVENUE			ART UNIT	PAPER NUMBER
SUITE 1500 BOX 111			2616	
TORONTO, ON M5G2K8				
CANADA				
MAIL DATE		DELIVERY MODE		
05/22/2007		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/645,489	MISTRY ET AL.	
Examiner	Art Unit		
Man Phan	2616		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 22 August 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) _____ is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-8 and 10-14 is/are rejected.
- 7) Claim(s) 9 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received..
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date. ____ .
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/23/2004, 1/14/2004. 5) Notice of Informal Patent Application
6) Other: ____ .

DETAILED ACTION

1. The application of Mistry et al. for the "Multi staged service s policing" filed 08/22/2003 has been examined. This application claims priority from provisional application 60/440,625 filed 01/17/2003. Claims 1-14 are pending in the application.

2. The applicant should use this period for response to thoroughly and very closely proof read and review the whole of the application for correct correlation between reference numerals in the textual portion of the Specification and Drawings along with any minor spelling errors, general typographical errors, accuracy, assurance of proper use for Trademarks TM, and other legal symbols @, where required, and clarity of meaning in the Specification, Drawings, and specifically the claims (i.e., provide proper antecedent basis for "the" and "said" within each claim). Minor typographical errors could render a Patent unenforceable and so the applicant is strongly encouraged to aid in this endeavor.

Claim Objections

3. Claims 1, 2, 9, 13 are objected to because of the following informalities: The claims contains the phrase "*adapted to*". It has been held that the recitation that an element is "*adapted to*" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 12 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, specifically, as directed to “computer program product” or “a software routine”. The claimed “computer readable medium” product or “software routine” of claim 12 is non-statutory as at no time in the claim does applicant define the software routine. A computer program per se is not in one of the statutory categories. A computer program must be claimed in combination with an appropriate computer readable medium so that the program is capable of producing a useful, concrete and tangible result when used in a computer system

Claim 12 is direct to “a computer readable medium” product which is not supported by either a specific asserted utility or a well established utility. Claim 12 merely defines “*a computer readable medium product*” or “*data record for storing instructions*”, and is not directed to statutory subject matter. The claim appears to be nothing more than a signal not tangibly embodied in a manner so as to be executable and thus non-statutory for failing to be in one of the categories of invention. It’s not tangibly embodies and non-functional descriptive material - data per se. Therefore, what applicant is attempting to claim as a computer program product or data record as is known in the art. The claim is actually drawn to non-functional descriptive material stored on a machine readable medium. The description given in the specification does not cure this problem. In practical terms, claims define non-statutory processes if they simply manipulate abstract ideas, e.g., a bid or a bubble hierarchy, without

some claimed practical application, Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59; Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759.

6. Claim 12 is also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-3, 10-11 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buskirk et al. (US#6,901,052) in view of Bonaventure (US#6,618,356).

With respect to claims 1-3 and 13-14, the references disclose a novel system and method for policing data traffic communications networks, according to the essential features of the claims. Buskirk et al. (US#6,901,052) discloses a packet policing system provides multi-protocol policing of packets of a data stream. The policing system includes a classifier to receive and parse the data stream into a plurality of multi-protocol traffic flows. A policing processor is coupled to the classifier to receive each of the traffic flows. The processor is configured to convert each of the packets into a predetermined format, and to perform a shared bandwidth capacity test in order to determine packet conformance for each of the packets. The shared test is applied to all packets, regardless with their original protocol affiliation (See Fig. 1; Col. 4, lines 13 plus). Buskirk further teaches in Fig. 4 a block diagram illustrating selected functional blocks of an ingress processing system such as that described in connection with Fig. 3. The ingress processing system 400 of Fig. 4 illustrates the classifier functional block 402, the policer functional block 404, and the editor functional block 406. The policer 404 performs a variety of functions, including ensuring flow conformance to a maximum allowed peak rate and a contractually obliged committed rate flow, e.g., DiffServ IP and MPLS. The policer 404 works with memory, such as SRAM 414 which stores parameters for each connection. The editor 406 supports policing results and makes other appropriate modifications to the packet before being output from the ingress processing system 400. An external memory, such as SRAM 416, may be used to store the editor instructions. The coprocessor/CPU interface 408 provides for coprocessor/CPU support via interface 408, thereby allowing processor control, configuration,

etc. of the classifier 402, policer 404, and editor 406. The interface 408 allows the system 400 to be coupled to a coprocessor and/or other CPU such as CPU 420, and to memory such as SRAM 422. In this manner, the ingress processing system 400 receives incoming packets, classifies and parses the packets according to predetermined criteria such as protocol, enforces policing functions on the packets, and modifies the packets accordingly before outputting the packets to the switch fabric (Col. 9, lines 8 plus).

In the same field of endeavor, Bonaventure (US#6,618,356) teaches in the Figure a block diagram illustrated a data traffic policer (POL) included in a telecommunication network, to police data traffic which includes data packets. The data traffic policer POL includes an input IN and an output OUT. Furthermore the data traffic policer POL includes a receiver REC, a transmitter TR, a first determiner DET1, a second determiner DET2, a first controller CTRL1, a second controller CTRL2 and a declaring device DECL. The input IN and the output OUT of the policer POL are both coupled to the common communication link L. The receiver REC is coupled to the input IN and to the first determiner DET1 and to the second determiner DET2. The first determiner DET1 is coupled to the first controller CTRL1 and the second determiner DET2 is coupled to the second controller CTRL2. Both controllers CTRL1 and CTRL2 are coupled to the declaring device DECL that on its turn is coupled to the transmitter TR. Finally the transmitter TR is coupled to the output OUT of the data traffic policer POL. The receiver REC receives the incoming data packets being transported over the common communication link L. Upon reception of a data packet, the receiver REC provides the information of the header part of this data packet i.e. ATM header to the first determiner DET1 and to the second determiner DET2. The first determiner DET1 determines by means of the received header information the

lower order identifier LOI and provides it to the first controller CTRL1. The second determiner DET2 determines by means of the received header information the higher order identifier HOI and provides it to the second controller CTRL2. The first controller CTRL1 executes a lower order conformance checking LOC according to the predefined lower order conformance rules being defined in the traffic contract that is referred to by the received lower order identifier LOC(LOI). The first controller CTRL1 provides hereby a lower order conformance result LOCR that equals lower order conforming or lower order non-conforming. This lower order conformance result LOCR is forwarded to the declaring device DECL. The second controller CTRL2 executes a higher order conformance checking HOC according to the predefined higher order conformance rules being defined in the traffic contract that is referred to by the received higher order identifier HOC(HOI). The second controller CTRL2 provides hereby a higher order conformance result HOCR that equals higher order conforming or higher order non-conforming. This higher order conformance result HOCR is forwarded to the declaring device DECL. In the event when the received lower order conformance result equals non-conforming and the received higher order conformance result equals conforming, the declaring device declares the received data packet as conforming. Since other situations according to other conformance results are going beyond the aim of the invention, the functionality of the declaring means according to these further situations is not described here in further detail. When the declaring device declares the received data packet as conforming, the data packet might be transmitted on the communication link L. The declaring device DECL forwards a permission signal to the transmitter TR and the transmitter TR transmits the conforming data packet on the communication link L (Col. 6, lines 63 plus).

Regarding claims 4-8, the reliance on a commonly known standard such as the use of Layer 2 technologies like Frame relay and ATM cell in the manner claimed would have been obvious to the artisan as a matter of the design choice. The most common approach to handling these problems has been to use an Asynchronous Transfer Mode (ATM) virtual circuit (VC) for each subscriber and to set a limit on the VC. This is known as traffic provisioning on a per subscriber line basis. This is often accomplished using layer 2 technologies like Frame relay and ATM as admitted by the Applicant as prior art (See specification, page 2). There are a number of standards used in digital telecommunications, including TCP/IP, Ethernet, HDLC, ISDN, ATM, X.25, Frame Relay, Digital Data Service, FDDI (Fiber Distributed Data Interface), T1, xDSL, Wireless, Cable Modems, and Satellite among others. Many of these standards employ different packet and/or frame formats. The term "frame" is often used in reference to encapsulated data at OSI layer 2, including a destination address, control bits for flow control, the data or payload, and CRC (cyclic redundancy check) data for error checking. The term "packet" is often used in reference to encapsulated data at OSI layer 3. Furthermore, Referring to the Figure in Bonaventure (US#6,618,356), a data traffic policer POL is shown. The data traffic policer POL is preferred to be included in an ATM communication network on a data communication link L. The data communication link data transports packets i.e. ATM cells. The receiver REC receives the incoming data packets being transported over the common communication link L. Upon reception of a data packet, the receiver REC provides the information of the header part of this data packet i.e. ATM header to the first determiner DET1 and to the second determiner DET2 (Col. 6, lines 23 plus).

With respect to claims 10-11, they are method claims corresponding to the apparatus claims as discussed in paragraph above. Therefore, claims 10-11 are analyzed and rejected as previously discussed with respect to claims above.

One skilled in the art of communications would recognize the need for a novel system and method for services policing in data communications networks, and would apply Bonaventure's novel use of data traffic policer (POL) into Buskirk's system and method for policing one or more flows of data stream of packets associated with different transmission protocols. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Bonaventure's method for policing data traffic, a data traffic policer realizing such a method and a telecommunication network including such a policer into Buskirk's system and method for policing multiple data flows and multi protocol data flows with the motivation being to provide a system and method for a multi staged services policing.

Allowable Subject Matter

10. Claim 9 is objected to as being dependent upon the rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

11. The following is an examiner's statement of reasons for the indication of allowable subject matter: The closest prior art of record fails to disclose or suggest a, as specifically recited in the claims.

12. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Raisanen et al. (US#6,633,540) is cited to show the real time traffic shaper with keep alive property for best effort traffic.

Cheriton (US#7,054,930) is cited to show the system and method for propagating filters.

The Lin et al. (US#6,4633,068) is cited to show the router with class of service mapping.

The Gupta et al. (US#7,027,394) is cited to show the broadband system with traffic policing and transmission scheduling.

The Lin et al. (US#7,106,731) is cited to show the router with class of service mapping.

The Cheiton (US#6,981,052) is cited to show the dynamic behavioral queue classification and weighting.

The Ferguson et al. (US#7,215,637) is cited to show the systems and methods for processing packets.

The Zhang et al. (US#7,130,917) is cited to show the Quality of Service in a gateway.

The Zhang et al. (US#2006/0265514) cited how the Quality of Service in a gateway.

14. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

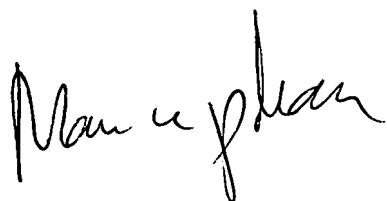
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

05/18/2007.

A handwritten signature in black ink that reads "Mphan". The signature is written in a cursive style with a vertical "M" on the left, followed by "phan" with a horizontal line through the "p".